



# SK52C THRU SK510C

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

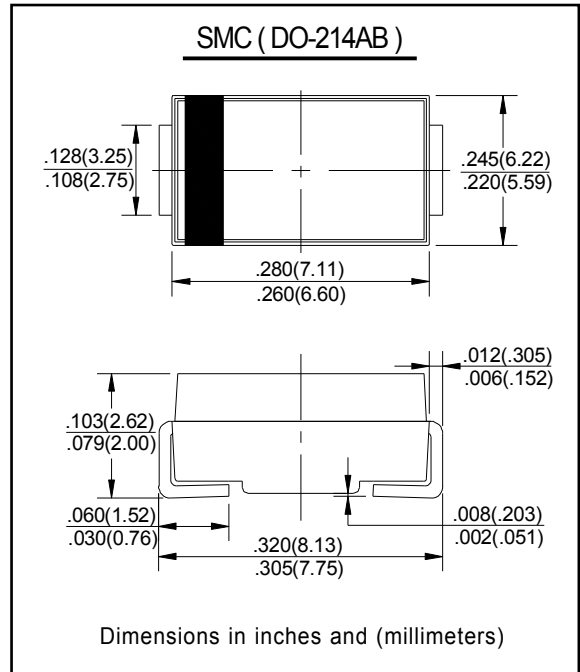
Reverse Voltage - 20 to 100 Volts    Forward Current - 5.0 Ampere

### FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

### MECHANICAL DATA

**Case:** JEDEC SMC(DO-214AB) molded plastic body  
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.007 ounce, 0.24grams



### Maximum Ratings and Electrical Characteristics @<sub>T<sub>A</sub></sub>=25°C unless otherwise specified

Characteristic	Symbol	SK52C	SK53C	SK54C	SK55C	SK56C	SK58C	SK59C	SK510C	Unit	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>										
Working Peak Reverse Voltage	V <sub>RWM</sub>	20	30	40	50	60	80	90	100	V	
DC Blocking Voltage	V <sub>R</sub>										
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	56	64	71	V	
Average Rectified Output Current @ <sub>T<sub>L</sub></sub> = 90°C	I <sub>o</sub>	5.0								A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	175								A	
Forward Voltage @ <sub>I<sub>F</sub></sub> = 5.0A	V <sub>FM</sub>	0.50			0.75		0.85			V	
Peak Reverse Current @ <sub>T<sub>A</sub></sub> = 25°C At Rated DC Blocking Voltage @ <sub>T<sub>A</sub></sub> = 100°C	I <sub>RM</sub>	0.5					20				mA
Typical Thermal Resistance (Note 1)	R <sub>θJL</sub> R <sub>θJA</sub>	14					50				°C/W
Operating Temperature Range	T <sub>j</sub>	-65 to +125								°C	
Storage Temperature Range	T <sub>STG</sub>	-65 to +150								°C	

Note: 1. Mounted on P.C. Board with 5.0mm<sup>2</sup> copper pad area.



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## RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

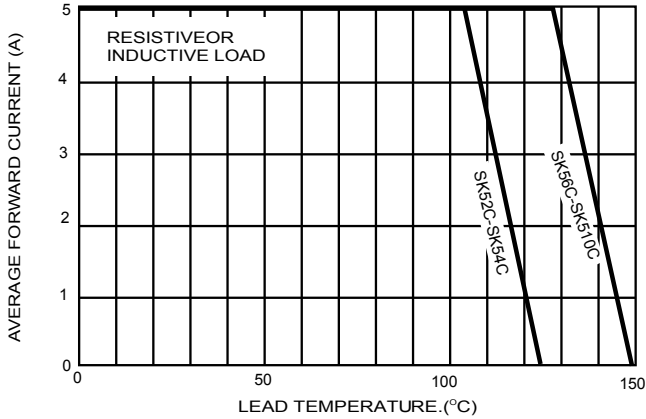


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

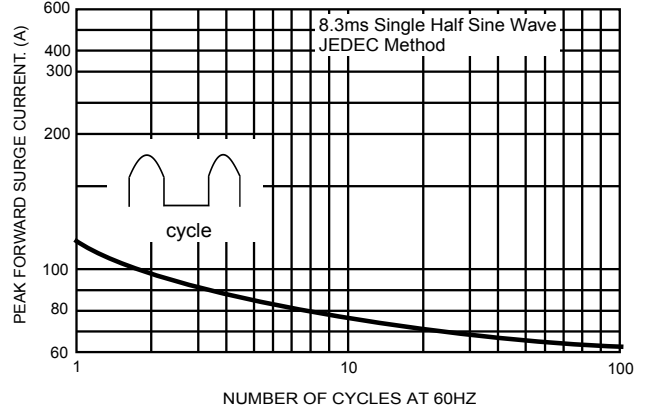


FIG.3-TYPICAL FORWARD CHARACTERISTICS

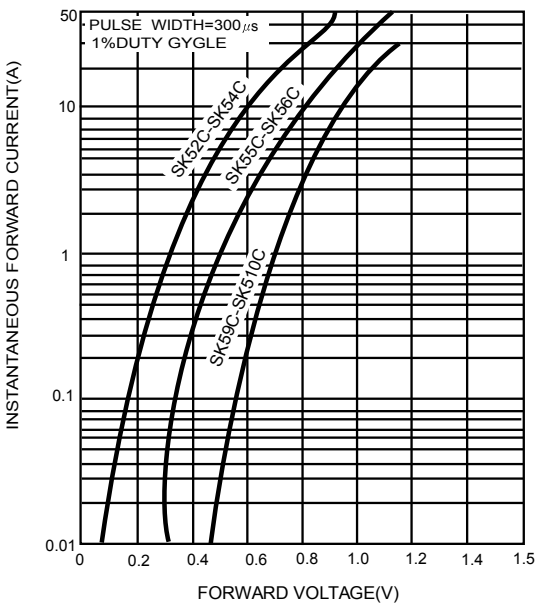


FIG.4-TYPICAL REVERSE CHARACTERISTICS

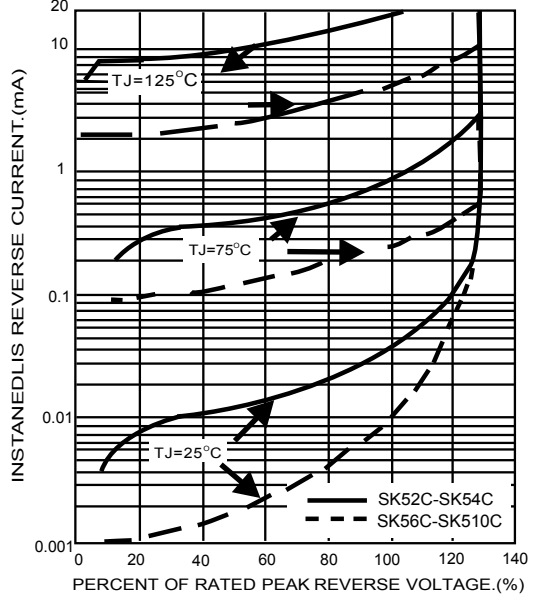


FIG.5-TYPICAL JUNCTION CAPACITANCE

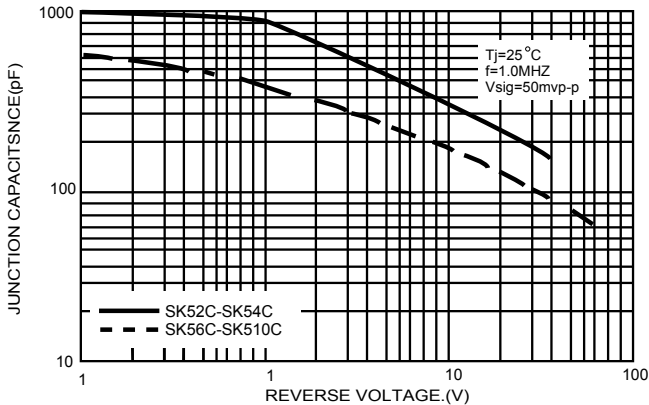


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

